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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,663	07/27/2004	Bin-Juine Huang	12262-US-PA	4662

31561 7590 11/15/2006

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

EXAMINER

DUONG, THO V

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/710,663

Applicant(s)

HUANG ET AL.

Examiner

Tho v. Duong

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3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/10/06; 5/30/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of group I in the reply filed on 10/4/06 is acknowledged.

Specification

The disclosure is objected to because of the following informalities: in paragraph 44, at lines 1 and 4 of the paragraph, reference number (210) refers both to "evaporator" and "connecting pipe".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yao et al. (US 6,450,132) in view of T. D. Coe (US 3,387,653). Yao discloses (figures 1,5-7 and column 1, lines 50-67) a heat transfer device for transporting a heating source from a heating device comprising an evaporator, which comprises a first hollow tube (2); a porous core (7), which has a

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fluid channel fluidly connected to a fluid reservoir, mortised inside the first hollow tube ; a second hollow tube (4) mortised on the first hollow tube (2); a connecting pipe (9,11) connected to the evaporator; a condenser (20) on the connecting pipe; and a channel (36) between the first hollow tube (2) a porous core (7); the channel (36) being fluidly connected to the connecting pipe (9,11); the first hollow tube (2) and second hollow tube (4), each has a closed end, which has a first surface and a first hole formed therein for connecting to the connecting pipes (9,11). Yao does not disclose a heat conductor covering the evaporator and being on the heating device. Coe discloses (figures 3-4 and column 4, lines 8-14) a heat transfer device that has a heat conductor comprises a first heat conducting block (22) having a heat conducting tenon (26,27), a second heat conducting block (24) having mortise (31,32) for the insertion of the tenon; the first block and second block are put together to cover the tube (21) for a purpose of allowing semiconductor devices to be cooled, affixed on the heat transfer device in good thermal contact therewith. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Coe's teaching in Yao's device for a purpose of allowing semiconductor devices to be cooled, affixed on the heat transfer device in good thermal contact therewith.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ogushi et al. (US 6,330,907) discloses an evaporator and loop type heat pipe.

Kroliczek et al. (US 2003/0178184A1) discloses a loop type heat pipe.

Maciaszek et al. (US 6,058,711) discloses a capillary evaporator.

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Fredley (US 4,899,810) discloses a low pressure drop heat pipe heat exchanger.

Cima (US 4,903,761) discloses a wick assembly for self regulated fluid management.

Alario et al. (US 5,303,768) discloses a capillary pump evaporator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TD



Tho v Duong
Primary Examiner
Art Unit 3744

TD
November 3, 2006